

AMENDMENTS TO THE CLAIMS:

Please add new claims 79 and 80, as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-21. (Canceled)

22. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein said hard magnetic film containing Co as a structural element has Co(110) oriented perpendicular to the surface thereof.

23-25. (Canceled)

26. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein said pair of bias magnetic field applying films are abutted against said magnetoresistance effect film.

27-47. (Canceled)

48. (Previously Presented) A magnetic recording/reproducing head, comprising:
a reproducing head having a magnetic head as set forth in claim 78;

a recording head having a lower record magnetic pole in common with said upper magnetic shield layer of said magnetic head, a record magnetic gap formed on the lower record magnetic pole, an upper record magnetic pole formed on the record magnetic gap, and a record coil for supplying a record magnetic field to the lower record magnetic pole and the upper record magnetic pole.

49-69. (Canceled)

70. (Previously Presented) A magnetoresistance effect device comprising:

a substrate having a main surface;

a magnetoresistance effect film formed on the main surface of the substrate and having a magnetic field detecting portion;

a pair of bias magnetic field applying films, each being disposed adjacent to both edge portions of the magnetoresistance effect film, said each of the bias magnetic field applying films comprising a hard magnetic film containing Co as a structural element; and

an under-layer having a thickness of 5 to 50 nm disposed between the substrate and the hard magnetic film, the under-layer being composed of an amorphous layer formed on the main surface of the substrate and a metal crystal layer formed on the amorphous layer.

71. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein said hard magnetic film is composed of CoPt alloy.

72. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein the hard magnetic film has a residual magnetization M_r of 650 emu/cc or more.

73. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein the magnetoresistance effect film is a spin valve film comprising a ferromagnetic film and a non-magnetic film.

74. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein the hard magnetic film has a bi-crystal structure.

75. (Previously Presented) The magnetoresistance effect device as set forth in claim 70, wherein the metal crystal layer is formed of a crystal metal material having a bcc structure, the crystal metal material being at least one selected from the group consisting of Cr, V, and an alloy thereof.

76-77. (Canceled)

78. (Previously Presented) A magnetic head, comprising:
a lower magnetic shield layer;
a magnetoresistance effect device formed on said lower magnetic shield layer through a lower reproduction magnetic gap, said magnetoresistance effect device being as set forth in claim 70; and

an upper magnetic shield layer formed on said magnetoresistance effect device through an upper reproduction magnetic gap.

79. (New) The magnetoresistance effect device as set forth in claim 70, wherein the metal crystal layer comprises crystal grains, the crystal grains having an average diameter of five times or more of a thickness of the metal crystal layer.

80. (New) The magnetoresistance effect device as set forth in claim 70, wherein the metal crystal layer constitutes a non-ferromagnetic metal material.